



Course ID: HOB113	Course name: SPECIAL TOPICS IN CHEMISTRY		
Cycle: SECOND	Year: FIRST	Semester: I	ECTS credits: 6
Course status: ELECTIVE	Total course hours: 90 Lectures: 60 Laboratory: 30		
Teaching participants:	Teachers and associates with expertise in the field of chemistry		
Prerequisite for enrollment:	-		
Course aims:	Introducing students to current topics in chemistry.		
Thematic course units:	<ol style="list-style-type: none">1. Vitamin C in biological samples;2. Methods of separation and identification of organic compounds in biological samples;3. Essential oils-isolation, separation and identification;4. Phenolic compounds and antioxidant activity;5. Enzymatic antioxidant systems in living cells;6. Chemistry and metabolism of iron in biological systems;7. Methods for polymer characterisation;8. Complex compounds in technology and medicine;9. Emulsifiers;10. Chemical analysis of selected materials.		
Learning outcomes:	<p><i>Knowledge:</i> The student will complete and expand already acquired knowledge with new topics in the field of Organic chemistry and Biochemistry.</p> <p><i>Skills:</i> The student will be able to use some new methods of analysis of organic and physiologically active substances.</p> <p><i>Competences:</i> The student will acquire competences to discuss new scientific challenges aimed at innovating existing methods for the production and analysis of chemical materials, detection of toxic substances in food, air, water and soil, disease diagnostic, design of new medicines, all for the purpose of improving the living conditions of mankind.</p>		
Teaching methodology:	Classroom lectures and laboratory exercises.		
Assessment methods and grading system¹:	Grading criteria		
	Criteria	Maximal score	Required score
	1. Class attendance	5	3
2. Class activities	10	5	

¹ The grading structure for each subject is determined by the Council of the organizational unit before the beginning of the academic year in which the subject is taught as per Article 64, paragraph 6 of the Law on Higher Education of Sarajevo Canton

	3. Midterms	45	25
	4. Final exam	40	22
	Total	100	55
	Scores and grading		
	Score	Grade (B&H)	Grade (ECTS)
	< 55	5	F, FX
	55–64	6	E
	65–74	7	D
	75–84	8	C
	85–94	9	B
	95–100	10	A
Literature²:	<i>Mandatory literature:</i>		
	<ol style="list-style-type: none"> 1. Cseke L.J., Kirakosyan A., Kaufman P.B., Warber S., Duke J.A., Briemann H.L. (2006) <i>Natural products from plants</i>, CRC Press. 2. Đaković Lj., <i>Koloidna hemija</i>, Zavod za udžbenike i nastavna sredstva, Beograd, 2006. 3. Hadžidedić M., <i>Tehnologija sa poznavanjem robe</i>, Svjetlost Sarajevo, 1981. 4. Vatrenjak Velagić V., <i>Analitička kontrola kvaliteta</i>, Studentska štamparija Univerziteta u Sarajevu, 1997. 		
	<i>Supplementary literature:</i>		
	<ol style="list-style-type: none"> 1. Crichton R.R., <i>Inorganic Biochemistry of Iron Metabolism</i>. Ellis Horwood Ltd., West Sussex, 1991; 29-58. 2. Omanović M., <i>Savremene metode ispitivanja sastava materijala</i>, Dom Štampe, 1981. 3. Eitenmiller R. R., Ye L., Landen W. O. <i>Vitamin analysis for the health and food sciences</i>. CRC Press, Taylor & Francis Group, UK, 2008. 		

² The Senate of the higher education institution, as an institution, or the Council of the organizational unit of the higher education institution, as a public institution, determines by a special decision, which is published on its website before the beginning of the academic year obligatory, mandatory and recommended textbooks and manuals, as well as other recommended literature based on which exams are prepared and taken as per Article 56, paragraph 3 of the Law on Higher Education of the Sarajevo Canton